

WE CLAIM

1. A pumping device having a motor arranged in relation to a pumping assembly, the motor having a housing and a shaft extending therefrom for rotating an impeller in the pumping assembly, having a motor seal arranged therein between the shaft and the housing, and having a pump seal arranged between the shaft and the pump assembly, characterized in that

the pumping device further comprises a third seal arranged in relation to the shaft for providing additional sealing protection for the motor seal.

2. A pumping device according to claim 1, wherein the pumping device further comprises an adapter arranged between the motor housing and the pumping assembly having the third seal arranged thereon.

3. A pumping device according to claim 2, wherein the third seal is located on the motor end of the close coupled adapter and is a primary sealing device.

4. A pumping device according to claim 1, wherein the third seal is a labyrinth seal.

5. A pumping device according to claim 1, wherein the third seal is a magnetic seal.

5 6. A pumping device according to claim 1, wherein the third seal is a lip seal.

7. A pumping device according to claim 1, wherein the third seal is a non-contact seal.

10 8. A pumping device according to claim 1, wherein the pumping device is a close coupled motor/centrifugal pump.

15 9. A pumping device according to claim 1, wherein the pumping device is a close coupled motor/positive displacement pump.

10. A pumping device according to claim 1, wherein the adapter is a close coupled adapter.

11. A pumping device having a motor arranged in relation to a pumping assembly, the motor having a housing and a shaft extending therefrom for rotating an impeller in the pumping assembly, having a motor seal arranged therein between the shaft and the housing, and having a pump seal arranged between the shaft and the pump assembly,
5 characterized in that

the pumping device further comprises an adapter arranged between the motor housing and the pumping assembly
10 having a third seal arranged in relation to the shaft for providing additional sealing protection for the motor seal.

12. A pumping device according to claim 11, wherein the third seal is a labyrinth seal.
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13. A pumping device according to claim 11, wherein the third seal is a magnetic seal.

14. A pumping device according to claim 11, wherein the
20 third seal is a lip seal.

15. A pumping device according to claim 11, wherein the third seal is a non-contact seal.

16. A pumping device according to claim 11, wherein the third seal is located on the motor end of the close coupled adapter and is a primary sealing device.

5 17. A pumping device according to claim 11, wherein the pumping device is a close coupled motor/centrifugal pump.

10 18. A pumping device according to claim 11, wherein the pumping device is a close coupled motor/positive displacement pump.

19. A pumping device according to claim 11, wherein the adapter is a close coupled adapter.